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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

TECHNICAL WORKING PARTY
FOR
VEGETABLES

Nineteenth Session

Pontecagnano-Salerno, Italy, May 27 to 29, 1986

REPORT

adopted by the Technical Working Party for VegetablesOpening of the Session

1. The nineteenth session of the Technical Working Party for Vegetables (hereinafter referred to as "the Working Party") was held in Salerno, Italy, from May 27 to 29, 1986. Subgroups on Vegetable Marrow, Pumpkin and Egg Plant also met in Salerno on May 26, 1986. The list of participants is given in Annex I to this report.

2. Prof. Dr. S. Porcelli, Director of the Istituto Sperimentale per l'Orti-coltura at Pontecagnano-Salerno, welcomed participants to Italy. The session was opened by Dr. J. Habben, Chairman of the Working Party.

3. The Chairman welcomed Dr. M. Valvassori, technical expert from the Commission of the European Communities, who was attending sessions of the Working Party for the first time.

Adoption of the Agenda

4. The Working Party adopted the agenda of its nineteenth session, which is reproduced in document TWV/XIX/1, after having agreed to delete sub-items (xi) (Water Melon) and (xiii) (Fennel) under item 13 and to add a new sub-item (Cucumber).

Adoption of the Report on the Eighteenth Session

5. The Working Party adopted the report on its eighteenth session reproduced in document TWV/XVIII/14 Prov., after having agreed on the following amendments:

(i) All changes mentioned in the first page of the Annex to circular U 1050/51-08.1, with the exception of that concerning page 6, paragraph 21, characteristic 9, were approved.

(ii) In paragraph 6, the date October 15 should be replaced by November 15. The penultimate sentence should be amended as follows, "Any wishes for participation should be addressed to Mr. Green within four weeks of receiving information" and the last sentence should be deleted.

(iii) In paragraph 29, the second sentence should form a new paragraph. After the second sentence, the following sentence should be inserted: "The purpose of this Subgroup is to discuss the characteristics and their states in preparation for the revision of the Test Guidelines for Peas". After the third sentence, the following sentence should be added; "Any country interested in participating in the revision of the Test Guidelines for Peas is requested to send to Mr. Green a list of characteristics used in the testing of distinctness, homogeneity and stability." The last sentence should form a new paragraph.

(iv) The suggestions for changes in Test Guidelines mentioned on pages 2 to 4 of the Annex to Circular U 1050/1051 would be discussed in connection with the working papers for the respective Test Guidelines documents.

Short Reports on Special Problems or Difficulties Encountered

6. Hilum Color in Field Bean. Mr. Evans (United Kingdom) reported on the strong opposition expressed by a breeder in his country to the requirement for 100% homogeneity in hilum color in field bean varieties. The same breeder also objects to the requirement for homogeneity in testa color and flower color in the same crop. The main reason for such opposition was that those characteristics had no practical value as long as the varieties were cultivated as an agricultural crop and that any effort to establish homogeneity in those characteristics would be considered by breeders as a waste of time. Dr. Valvassori (Commission of the European Communities) informed the Working Party that in EC Directives at present being prepared hilum color was included as a characteristic to be observed, but for synthetic varieties homogeneity in that characteristic was not required. The Working Party was reminded that the same testing standard should be applied to Field Bean and Broad Bean and the discussion focused on whether or not it would be necessary to rediscuss the agreement reached during the last session of the Technical Committee to include an asterisk for hilum color, a characteristic which is important for varieties cultivated as vegetables. Some experts feared that it might be possible to create new population varieties by combining at any rate two or more different varieties, if those varieties in which segregation occurs at a fixed rate were considered to be subject to protection. The Working Party finally recommended to the Technical Committee that segregation in discontinuous characteristics should be regarded as grounds for refusal to grant a plant breeders' right if varieties could be made homogeneous in that characteristic as a result of reasonable efforts, otherwise the whole plant variety protection system could be undermined. The Technical Committee should therefore rediscuss the question of the hilum color for broad bean during its next session.

7. Homogeneity in Resistance Characteristics. The German expert reported on a synthetic variety of spinach which was homogen in all morphological characteristics but was segregating in the resistance to powdery mildew into three components. In this connection, the Technical Committee was asked to study the question whether homogeneity in a resistance characteristic should be required even if the breeder indicates that the variety is not resistant.

8. Identification of Real Breeders. The Working Party took note of the considerable difficulties encountered in the United Kingdom in identifying the true breeders of new Hybrid varieties of Onion for which applications for plant breeders' rights had been made by two different Japanese companies indicating different breeders.

9. Difficulties in Identifying Mushroom Varieties. Mr. van Marrewijk (Netherlands) reported that the testing authority in his country was facing difficulty in identifying mushroom varieties for which an application for plant breeders' rights had been made. The case was at present before the courts and Mr. van Marrewijk would report on its outcome during the next session of the Working Party. He therefore proposed for the time being to delete mushrooms from the list of species for which Test Guidelines are planned.

Report on the Twenty-First Session of the Technical Committee

10. Dr. M.-H. Thiele-Wittig gave a brief report on the last session of the Technical Committee. Special attention was drawn to the Technical Committee's recommendation that the Technical Working Parties should enable technical experts from international organizations to take part in the discussions on the preparation of Test Guidelines. The full report of the session is reproduced in document TC/XXI/7.

Comparison of Pea Variety Descriptions

11. The comparison of pea variety descriptions would be discussed during a Subgroup Meeting which would take place in Edinburgh (United Kingdom) on July 15 and 16, 1986. The Working Party noted that experts from France, the Federal Republic of Germany, the Netherlands and the United Kingdom had expressed their intention of attending the meeting.

List of Reference Books and Documents

12. The Working Party noted document TC/XXI/4, which contained a list of reference books and documents, and paragraph 38 of document TC/XXI/7. Members of the Working Party were requested to check the list and to send any comments and/or additional information to the Office of the Union before the end of August.

Revision of the UPOV Model for a Report on Technical Examination

13. The Working Party noted document TC/XXI/6, which reproduced a draft revised UPOV model for a report on technical examination, as well as the proposal made on this subject by the Technical Working Party on Automation and Computer Programs which had held its fourth session in Hanover, Federal

Republic of Germany, from May 21 to 23, 1986. The above-mentioned proposal is reproduced in Annex III to this report. The Working Party finally agreed to the proposal with the following amendments:

(i) The name of the testing authority should not be included in the Table of Characteristics.

(ii) Whole states of expressions of characteristics should be included, but the Working Party left it to member States' discretion whether or not to include boxes for states which could just be marked.

(iii) Similar varieties should be understood to mean those most closely resembling varieties and the difference should be described in words as in the present model.

Items for the Technical Working Party on Automation and Computer Program

14. The Working Party noted documents TWV/XIX/24 and TWV/XIX/24 Add., which contained an "Inventory of the statistical methods used at present when comparing data on vegetable varieties," as well as the remarks on the inventory sent by Dr. Weatherup (United Kingdom) and reproduced in Annex II to this document.

15. Dr. M.-H. Thiele-Wittig reported that during its fourth session, held in Hanover from May 21 to 23, 1986, the Technical Working Party on Automation and Computer Programs had decided to recommend to the Technical Committee that it should introduce COY criterion for testing grass varieties and should endeavor to apply it to other cross-fertilized species.

16. The discussion focused on whether COY analysis could also be applied to the testing of vegetable varieties. Some experts pointed out that, for vegetable varieties in general, statistical processing should only be used to confirm the visible distinctness. Its application in cases in which such distinctness could not be observed visually should be handled with caution. That meant that the application of COY analysis would only be meaningful for out-pollinated vegetable species like onions. Finally, the Working Party wished to inform the Technical Committee that it will first have to study whether the COY analysis could be directly applied when testing the distinctness of vegetable varieties. The expert from the Netherlands would try to apply that analysis to test results for onion varieties and would report on its outcome during the next session of the Working Party.

17. The Working Party noted that most member States did not specially test stability, but took decisions on stability in connection with the testing of homogeneity. Some experts expressed the opinion that stability was a problem of reproduction and not of genetics and that it was not possible to test stability to the same degree as distinctness and homogeneity in the normal two years of test before granting protection. If a variety was not found to be stable after having been admitted, its protection would be annulled. The Working Party agreed to ask the Technical Committee to discuss the testing of stability during its next session.

Testing of *Bremia lactucae* in Lettuce

18. Mr. Evans introduced document TWV/XIX/23, which contained a proposal on a testing procedure for downy mildew of lettuce (*Bremia lactucae*). It was considered meaningful to identify the resistance genes in lettuce varieties

using Bremia lactucae isolates of known virulence. The Working Party agreed to set up a subgroup to discuss the most appropriate methods. It also agreed to ask the Technical Committee to approve the subgroup's establishment so as to facilitate the participation of experts from the Working Party. The subgroup should consist of phytopathologists and those working with plant breeders' rights offices and it would be organized by Mr. Evans as soon as the Technical Committee had approved its establishment.

Standard Test Guidelines

19. The Working Party noted paragraphs 46 and 47 of document TC/XXI/7 and document TC/XXI/8. This agenda item was not discussed separately, but was taken up during the discussions on draft Test Guidelines and working papers on Test Guidelines. The Working Party recommended the following modifications in Standard Test Guidelines to the Technical Committee:

- (i) In the fourth sentence of Chapter III, the words "strictly the same" should be replaced by "a similar."
- (ii) Paragraph 1 of Chapter IV should be deleted.
- (iii) The last part of paragraph 3 of Chapter IV should read: "plants or parts of plants."
- (iv) Chapter V should be entitled "Grouping of Varieties."

Discussion on Test Guidelines

20. The Chairman welcomed Mr. G.P.W. van Bentum who was participating in discussions on Test Guidelines for the first time as a technical expert nominated by ASSINSEL.

Final Discussion on Draft Test Guidelines

Test Guidelines for Turnip, Turnip Rape (Revision)

21. The Working Party noted documents TWV/XIX/8, TWV/XIX/15 and TWV/XIX/26. It agreed to send the document to the Technical Working Party for Agricultural Crops, which would meet in Dublin, Ireland, from June 4 to 6, 1986, after the following changes had been made in document TWV/XIX/8:

Changes made in the Table of Characteristics:

Characteristics

- 17, 18 These characteristics should be combined into one characteristic as follows: "Leaf: hairiness of upper side" with the states "absent or very weak (Appin), weak (Houtlander, Teutonengold, Tokyo Market), medium (Milan à forcer collet rose), strong (Blanc dur d'hiver, Blanc plat hâtif à feuille entière, Hampshire Hardy Green Round) and very strong"
- 23, 24, 25 these three characteristics should be replaced by the following four characteristics: "Root: anthocyanin coloration of skin above soil" with the states "absent (Tokyo Market) and present (De Montesson, Scarlett Ball, Vollenda);" "Root: intensity of anthocyanin coloration of skin above soil" with the states "very weak, weak (Camora), medium (Barkant, Frisia, Norfolk à collet rouge),

strong (Arcoat, Samson) and very strong (Noir rond);" "Root: chlorophyll coloration of skin above soil" with the states "absent (Tokyo Market) and present (Rekord, Volland)" and "Root: intensity of chlorophyll coloration of skin above soil" with the states "weak (Arca, Norfolk à collet rouge), medium (Gros long d'Alsace) and strong (Croppa, Gold wage)."

Test Guidelines for Melon

22. The Working Party noted documents TWV/XIX/9 and TWV/XIX/25 and agreed to send the draft Test Guidelines for Melon to the Technical Committee for final adoption after having made the following changes in document TWV/XIX/9:

(i) Subject of these Guidelines was determined as "all types of the species Cucumis melo L."

(ii) In paragraph 2 of Chapter II, the words "plant material" should be replaced by the word "seed."

(iii) In paragraph 3 of Chapter IV, the words between the brackets should be deleted and it was decided that the number of the minimum sample should be 20.

(iv) In Chapter IV, the last sentence of paragraph 8 should form a separate paragraph.

(v) Changes made in the Table of Characteristics

Characteristics

- | | |
|--------|---|
| 1 | to have the additional example varieties "Emerald Gem (3), Amarillo Canario (7)" inserted and the example variety "Luberon" deleted |
| 2 | to have the additional example varieties "Perlita (3), Amarillo Canario (7)" inserted and the example variety "Luberon" deleted |
| 3 | to have the additional example variety "Alaska (3)" inserted |
| 5 | to have an asterisk inserted |
| 16 | to have an asterisk and the additional state "grey-green (4)" with the example variety "Vedrantais" inserted |
| 18, 19 | to have an asterisk inserted |
| 20 | to have the additional example variety "Noir des Carmes (1)" inserted |
| 21 | to have an asterisk inserted and to make the states read "toward blossom end (1), at center (2), towards stem end (3)" |
| 23 | to make the states read "white (1), yellow (2), yellow-green (3), green (4), ochre (5)" |
| 25 | to read: "Fruit: secondary colors of skin (excluding groove color)" and to replace the example variety "Honey Dew" by "Sweet-heart" |

- 26 to have an asterisk and the indication "(as 25)" inserted
- 29 to have the example variety "Fiesta" deleted
- 30 to read: "Fruit: thickness of peduncle 1 cm from fruit"
- 31 to have an asterisk inserted
- 32 to make the example varieties for state 3 read "Charantais Gros Pécout, Perlita, Tendral Negro Tardio"
- 33, 34, 35 to have an asterisk inserted
- 36 to read: "Fruit: grooves" and to have the example varieties "Galia, Perlita" replaced by "Ogen"
- 37 to have an asterisk inserted and to read: "Fruit: maximum width between grooves"
- 38 to have the example variety "Honey Dew" deleted
- 39 to have the example variety "Boule d'Or" deleted
- 42 to have the example variety "Athos" replaced by "Futuro" and the following additional example varieties "Galia (3), Persian (5), Imperia, PMR 45 (7), Honey Rock (9)" inserted
- 44 to have the example variety "Athos" deleted, the variety "Galia" checked and the following additional example varieties "Bola de Oro (1), Marina (5)" inserted
- 49 to have the following three states: "cream (Piñonet, White Marbel), green (Honey Dew, Ogen) and orange (Harvest Queen, Imperial PMR-45, Vedrantais);" after this characteristic, a new characteristic to be added reading: "Fruit: intensity of main color of flesh" with the states "light (3), medium (5), dark (7)"
- 50 to have a drawing explaining the position of the outer layer inserted
- 51 to have the states "always three (1), three and more (2)"
- 52 to be deleted
- 53 to have the example variety "Diamex" replaced by "Katsura Giant, Sweetheart"
- 55 to have the example variety "Rochet" deleted
- 56 to have the state "white" replaced by "ivory"
- 57 to be deleted

(vi) At the end of the Table of Characteristics, the following new resistance characteristics should be added:

(a) "Resistance to *Aphis gossypii*" with the states "absent, present (Margot, AR Top Mark)",

(b) "Wilting due to pathotype F of Zucchini Yellow Mosaic Virus (ZYMV)" with the states "absent (Vedrantaïs, Hermes, Ananas d'Amérique à chair rouge, Eloro), present (Boule d'or, Doublon, Alfa)",

(c) "Resistance to Papaya Ringspot Virus (PRV)," pathotype prv¹ with the states "absent (Vedrantaïs), present (MRV 29),

(d) "Resistance to Papaya Ringspot Virus (PRV), pathotype prv²" with the states "absent (Vedrantaïs, WMR29), present," and

(e) "Resistance to Musk melon Necrotic Spot Virus (MNSV), pathotype nsv with the states "absent (Vedrantaïs), present (VA 435)"

(vi) As to characteristic 65, the present denomination of Water Melon Mosaic Virus 2 would be checked by the experts from France and Israel in order to avoid confusion between different viruses to be included in the Table of Characteristics.

(vii) The expert from France will send to the Office of the Union a complete list of example varieties and a drawing for characteristic 50 before the end of August.

Discussion on Working Papers on Test Guidelines

Test Guidelines for Vegetable Marrow, Pumpkin

23. The Working Party noted documents TWV/XIX/7 and TWV/XIX/21 and agreed to make the following changes in document TWV/XIX/7:

(i) Subject of these Guidelines should be "all types of species *Cucurbita pepo* L."

(ii) Recommended minimum amount of seed to be sent in as referred to in Chapter II should be 100 g in place of 50 g.

(iii) In paragraph 4 of Chapter IV, the word "external" should be inserted between the words "lower" and "leaves."

(iv) In paragraph 6 of Chapter IV, the end of the second sentence should be replaced by the following sentence: "If for climatic reasons this is not possible, all observations on the fruit should be made on fruits fully developed in size. The description should always indicate on which fruits the characteristics have been observed."

(v) Changes made in the Table of Characteristics:

Characteristics

5 between brackets to read "(excluding lower external leaves)"

6 to have an asterisk inserted

- 7 to have the states "absent or rudimentary (Goldbar), well-developed" and to have an asterisk deleted
- 10 to have the word "side" replaced by "surface"
- 11 to read "Leaf blade: marbling" and to have an asterisk deleted
- 12 to read "Leaf blade: area covered by marbling"
- 18 to be deleted
- 19 to have the example variety "Senator" replaced by "Greyzini" and to receive an asterisk (*)
- 21 to have the word "green" inserted before the word "ring"
- 23, 25 to have an asterisk inserted
- 26 after this characteristic, a new characteristic to be added reading: "Male flower: diameter of pedicel" with the states "thin, medium, thick" with the example varieties "Maya (3), Diamant (5), Samba (7)"
- 29 after this characteristic, a new characteristic to be added reading: "Male flower: length of sepals" with the states "short, medium, long" with the example varieties "Romano (3), Maya (5), Black Jack (7)"
- 30, 31 to have an asterisk inserted
- 34, 35 to be deleted
- 38 to have an asterisk inserted
- 39 to have the example variety "Honey Dew" deleted
- 39, 40 to have the word "dominant" replaced by "major"
- 41 to be deleted
- 42 to have an asterisk inserted and to have the additional state "lobed" with the example variety "Scaloppini"
- 50 to have an asterisk inserted and to have the states "only in patches, only in linear bands, in patches and in linear bands" deleted
- 51, 53, 54 to have an asterisk inserted
- 56, 57, 58, 59 to have the word "pedicel" replaced by "peduncle"
- 60, 61, 65, 66, 67, 68, 69, 70 these characteristics to be rearranged and some of them to have an asterisk inserted as follows:
- (*)60.a Fruit fully developed in size: major color
- (*)60.b Ripe fruit: major color
- 61.a Fruit fully developed in size: intensity of major color
- 61.b Ripe fruit: intensity of major color

- (*)65.a Fruit fully developed in size: color of stripes or ribs
- 65.b Ripe fruit: color of stripes or ribs
- 66.a Fruit fully developed in size: color of mottling of skin
- 66.b) Ripe fruit: color of mottling of skin

62, 63, 64 to have the word "mature" deleted

62, 63 to receive an asterisk

64 to have the states "low, medium, high"

67, 71, 72, 73 to have an asterisk inserted

(vi) The Expert from France will send to the Office of UPOV a list of example varieties that are still open, a new proposal of states of expressions for characteristic 33 and a list of books or documents to be indicated in Chapter IX.

24. In connection with the discussion on whether or not an asterisk should be included in characteristics 71, 72, 73 of the Test Guidelines for Vegetable Marrow, Pumpkin, the Working Party agreed to ask the Technical Committee to study the possibility of including an asterisk in those characteristics which are considered to be useful by certain countries, although for climatic reasons they might not be able to be observed in certain other member States.

Test Guidelines for Egg Plant

25. The Working Party discussed the preparation of Test Guidelines for Egg Plant on the basis of documents TWV/XIX/12 and TWV/XVIII/10 and made the following main changes in document TWV/XIX/12:

(i) Subject of these Test Guidelines should be "all types of species Solanum melongena L."

(ii) In the third sentence of Chapter III, the word "and" should be replaced by "or" and the last sentence of the same chapter should be deleted.

(iii) In Chapter V, the following characteristics should be used for the grouping of varieties:

- (i) Fruit: general shape (characteristic 12)
- (ii) Fruit: length (characteristic 11.b))
- (iii) Fruit: ratio length/diameter (characteristic 11.d))
- (iv) Fruit: color of skin (characteristic 17)
- (v) Fruit: stripes (characteristic 19)
- (vi) Fruit: color of flesh (characteristic 27)

(iv) Changes in the Table of Characteristics:

Characteristics

1 to have the example varieties "Baluroi (3), Listada de Gandia (7)" inserted; before this characteristic two additional characteristics to be included reading: "Seedling: anthocyanin coloration of hypocotyle" with the states "absent (Listada de Gandia), present (Bonica, Baluroi)" and "Seedling: intensity of anthocyanin coloration of hypocotyle" with the states "weak (Bonica), medium (Baluroi), strong (Larga morada)"

- 3 to have the words "node of" inserted before "first flower"
- 5 to read: "Leaf: margin" with the states "entire, dentate, sinuate;" after this characteristic, a new characteristic to be added reading: "Leaf: degree of sinuation of margin with the states "weak (Baluroi), medium (Bonica), strong (Niteking)"
- 6 to read: "Leaf: blistering of surface" with the states "absent, present;" after this characteristic, a new characteristic to be included reading: "Leaf: spinyess" with the states "absent or very weak (Bonico), weak (Baren), medium (Baluroi), strong (Larga morada), very strong"
- 9 to have the example varieties "Bonica (3), Baluroi (5), Redonda de Valencia (7)" inserted
- 11 after this characteristic, four new characteristics to be added, all with an asterisk except for the diameter, reading:
- "(a) Flower: purple color" with the states "light (Listada de Gandia), medium (Baluroi), dark (Redonda negra)"
- "(b) Fruit: length" with the states "very short, short (Niteking), medium (Baren), long (Negra Barbentane), very long"
- "(c) Fruit: maximum diameter" with the states "very small, small (Larga morada), medium (Baren), large (Bonica), very large" and
- "(d) Fruit: ratio length/diameter" with the states "very small (Redonda negra), small (Niteking), medium (Bonica), large (Larga morada), very large"
- 12 to have the states "pear-shaped, ovoid, spherical, cylindrical" included
- 14 to have an asterisk inserted
- 15 to have the states "indented, flat, pointed" included and to have an asterisk inserted; after this characteristic, a new characteristic to be added reading: "Fruit: depth of indentation" with the states "shallow (Marga), medium (Baluroi), deep"
- 16 to have an asterisk inserted
- 17 to read: "Fruit: color of skin at harvest maturity" and to have the additional state "yellow" included
- 19 to have an asterisk inserted; after this characteristic, an additional characteristic to be added reading: "Fruit: intensity of stripes" with the states "weak, medium, strong"

- 20 to read: "Fruit: glossiness (at harvest maturity);" after this characteristic, two new characteristics to be added reading: "Fruit: ribs on normally pollinated fruit" with an asterisk and with the states "absent (Reina Negra), present" and "Fruit: prominence of ribs on normally pollinated fruit" with the states "weak, medium (Redonda Morada), strong (Semi Redonda Negra)"
- 22 after this characteristic, a new characteristic to be added reading: "Fruit: intensity of anthocyanin coloration below calyx" with the states "weak, medium (Black Beauty), strong (Baluroi)"
- 24 to have the asterisk deleted
- 28, 29 to have the word "maturity" replaced by "ripening"
- 28 after this characteristic, a new characteristic with an asterisk to be added reading: "Time of beginning of flowering" with the states "early (Prelane), medium (Bonica), late (Black Beauty)"
- 29 to have the asterisk deleted

(v) The expert from France will send a list of example varieties still to be decided to the office of UPOV before the end of December.

(vi) In the Technical Questionnaire, characteristics 5.6, 5.9 and 5.11 were deleted and the characteristics on "Fruit: ratio length/diameter" and "Fruit: length" added.

Test Guidelines for Endive

26. The Working Party discussed the preparation of Test Guidelines for Endive on the basis of documents TWV/XIX/5 and TWV/XIX/20 and made the following main changes in document TWV/XIX/5:

(i) Subject of that document should be "all types of species Cichorium endivia L."

(ii) In Chapter II, the recommended minimum quantity of seed to be sent in was changed from 30 g to 20 g.

(iii) In Chapter III, the minimum number of plants to be included in each test was changed from 40 to 60.

(iv) Paragraph 5 of Chapter IV should read: "Unless otherwise indicated, all observations on the plant and the leaf should be made just before harvest maturity (except for characteristics 21, 22, 26, 33 which should be observed at the time of bolting).

(v) Changes made in the Table of Characteristics:

Characteristics

- 1 to have an asterisk inserted

- 5 to be divided in two characteristics reading: "Heart: color" with the states "yellowish green (Blonde à coeur plein, Toujours Blanche), green (Reine d'Hiver)" and "Heart: intensity of green color" with the states "light, medium (De Ruffec, Reine d'Hiver), dark (Wallone)"
- 6 to read: "Heart: shape in longitudinal section with the states "flat (Gloire de l'Exposition, Grosse Bouclée), slightly depressed (Toujours Blanche, Argentée Mirabel), depressed (D'Hiver de Provence, D'Hiver du Var)" and to have drawings inserted
- 8 to read: "Leaf: attitude of distal part relative to midrib" with the states "strongly incurved (Blonde à Coeur Plein, D'Hiver de Provence, Wallone), slightly incurved (Grosse Pancaliere), straight (Reine d'Hiver, Géante Marachère)"
- 9 to read: "Leaf: length (excluding outer and central leaf) and to have the plus (+) deleted
- 10 to read: "Leaf: maximum width (excluding outer and central leaf)"
- 12 to have the Notes "3, 5, 7" changed into the qualitative Notes "1, 2, 3"
- 13 to have the Notes "1, 2, 3" changed into the quantitative Notes "3, 5, 7" and the example varieties deleted
- 14 to have the states changed into "type 1 (Reine d'Hiver), type 2 (Wallone), type 3 (De Louviers, Gloire de l'Exposition) which would be explained by the expert from France; in chapter IV, it should be mentioned that the description of this characteristic should include a shadowgraph of leaf
- 16 after this characteristic, a new characteristic to be added reading: "Only varieties of plain endive: Leaf: dentation of margin" with the states "weak, medium, strong"
- 19 to read: "Only varieties of cut endive: Leaf: length of non-green midrib without lamina (in relation to total length of leaf)" and to have an explanation to be sent by the expert from France inserted
- 20 to have an explanation to be sent by the expert from France inserted
- 25 to be deleted
- 27 to have the states "elliptic, broad elliptic, round" included

(vii) All example varieties which are still open will be provided by the expert from France before the end of December.

Test Guidelines for Leaf Beet

27. The Working Party took note of documents TWV/XIX/6 and TWV/XVIII/10 and agreed to send draft Test Guidelines for Leaf Beet to the professional organizations for comment after having made the following main changes in document TWV/XIX/6:

(i) Subject of the Test Guidelines should be "all types belonging to subspecies Beta vulgaris L. var. cycla L. (Ulrich)."

(ii) In paragraph 1 of Chapter II, the recommended minimum quantity of seed should be 100 g.

(iii) In paragraph 3 of Chapter IV, the observations should be made on a minimum sample of 20 typical plants or parts of plants.

(iv) Paragraph 2 of Chapter V should be deleted.

(v) Changes made in the Table of Characteristics:

Characteristics

- | | |
|-------|---|
| 1 | to have the asterisk deleted |
| 2 | to have an asterisk and the additional example variety "Rhubarb Chard (9)" inserted |
| 4 | to have an asterisk inserted and to read: "Foliage: height" |
| 5, 6 | to have an asterisk inserted |
| 9, 14 | to be deleted |
| 16 | to include the additional example varieties "Paros, Verde de Niza (3), Verde penca blanca ancha (5), Amarilla de Lyon (7)" |
| 17 | to have the example varieties "Groene Gewone, Verde penca blanca ancha (1), Blonde Frisée, Lucullus (2), Blonde à Carte Blanche (3)" inserted; to have drawings to be prepared by the expert from France inserted |
| 18 | to have an asterisk inserted |

Test Guidelines for Chinese Cabbage

28. The Working Party noted document TWV/XIX/4 and agreed to send the draft Test Guidelines for Chinese Cabbage to the professional organizations after having made the following main changes in the document:

(i) Subject of these Guidelines should be decided by the experts from Israel, the Netherlands and the United Kingdom before the end of September.

(ii) In paragraph 3 of Chapter IV, the observations should be made from a minimum sample of 20 typical plants or parts of plants.

(iii) In Chapter V, paragraph 2 should receive characteristics 20 and 28 as grouping characteristics.

(iv) Changes made in the Table of Characteristics:

Characteristics

- | | |
|----|--|
| 11 | to read: "Outer leaf: curvature in longitudinal section" |
|----|--|

- 20 to have the states "narrow elliptic" replaced by "oblong"
- 26 before the end of October, the expert from the United Kingdom to check whether this characteristic could have the state "greenish yellow"
- 28 to have the example varieties to be provided by the expert from the Netherlands before the end of October inserted.

Status of Test Guidelines

29. The Working Party agreed that the draft Test Guidelines for Melon should be sent to the Technical Committee for final adoption.
30. The Working Party agreed that the draft Test Guidelines for Leaf Beet and for Chinese Cabbage should be sent to the professional organizations for comment.
31. The Working Party agreed that the draft Test Guidelines for Turnip, Turnip Rape (revision) should be sent to the Technical Working Party for Agricultural Crops for further discussion.
32. The Working Party agreed that the draft Test Guidelines for Vegetable Marrow, for Egg Plant and for Endive would require further discussion during the coming session.
33. Lack of time did not permit discussion of the working papers on Test Guidelines for Asparagus, for Parsley, for Runner Bean (revision), for Brussels Sprouts (revision), for Black Salsify, for Tomato (revision), for Carrot (revision), for Spinach (revision), or for Cucumber, Gherkin (revision).

Future Program, Date and Place of Next Session

34. At the invitation of the expert from the Federal Republic of Germany, the Working Party agreed to hold its twentieth session at Bamberg, Federal Republic of Germany, from June 2 to 4, 1987. The session will close at 5 p.m. on June 4. It is planned that the following items should be discussed during the twentieth session of the Working Party:
- (i) Short reports on special problems or difficulties encountered
 - (ii) Report on the twenty-second session of the Technical Committee and matters resulting from that session
 - (iii) Comparison of pea variety description (report on the Subgroup meeting for Pea)
 - (iv) List of reference books and documents
 - (v) Items for the Technical Working Party on Automation and Computer Programs (FR, NL to prepare a working paper)
 - (vi) Testing of Bremia lactucae in lettuce (report of subgroup)

(vii) Final discussion on draft Test Guidelines for:

- Leaf Beet
- Chinese Cabbage

(viii) Discussion on working papers on Test Guidelines for:

- Vegetable Marrow, Pumpkin
- Endive
- Egg Plant
- Asparagus (TWV/XIX/13, TWV/XVII/15 + NL to collect comments)
- Parsley (TWV/XIX/11)
- Runner Bean (revision) (TG/9/1, TWV/XIX/3)
- Brussels Sprouts (revision) (TG/54/3, TWV/XIX/2)
- Black Salsify (TWV/XIX/10)
- Tomato (revision) (TG/44/3, TWV/XIX/14, TWV/XIX/16, TWV/XIX/22 + NL to prepare a new working paper)
- Carrot (revision) (TG/49/3, TWV/XIX/17)
- Spinach (revision) (TG/55/3, TWV/XIX/18)
- Cucumber, Gherkin (TG/61/3, TWV/XIX/19)
- Cauliflower (revision) (TG/45/3 + NL to prepare a working paper)
- Cabbage (revision) (TG/48/3 + TG/48/3 Corr. + DE to prepare a working paper)
- Dill (SE to prepare a working paper)
- Chives (SE to prepare a working paper)
- Broccoli (IT to prepare a working paper)
- Oenothera (GB to prepare a working paper)

35. The Working Party agreed for the present to postpone the preparation of draft Test Guidelines for Water Melon, for Fennel and for Mushroom.

Any Other Business

Recent Changes in the Rules of Plant Variety Protection in Italy

36. Dr. S. Borrini, industrial property expert from the Italian Society of Patents, Rome, Italy, reported on recent changes in the rules of plant variety protection in Italy. According to Dr. S. Borrini, these changes made it possible for "non vascular plants" to be protected by patents.

Procedure for the Preparation or the Revision of Test Guidelines Which are Discussed by two or more Technical Working Parties

37. The Working Party recommended to the Technical Committee that, for Test Guidelines which are to be discussed by two or more Technical Working Parties, e.g. Test Guidelines for Turnip, Turnip Rape, for Pea etc., subgroups composed of experts from the different Technical Working Parties concerned should first agree on a working paper before discussion by the individual Technical Working Parties. The Working Party further recommended that experts from member States should first try to adopt a common approach at the national level before discussing a subject in the different Working Parties.

Leave of Experts

38. On behalf of the Working Party, Dr. Habben thanked Mr. G. Diaz (Spain) and Dr. J. Grobler (South Africa) who were present at the session of the Working Party for the last time, for their active participation in the work of the Working Party.

Visits

39. On May 29, 1986, the Working Party visited the Research Institute for Vegetable Crops in Pontecagnano-Salerno and also visited the Experimental Fields at Battipaglia near Salerno where several vegetable species are grown commercially on a large scale.

40. This report was adopted by the Working Party at its twenty-second session.

[Three annexes follow]

ANNEX I

LIST OF PARTICIPANTS AT THE NINETEENTH SESSION OF THE
TECHNICAL WORKING PARTY FOR VEGETABLES,
PONTECAGNANO-SALERNO, ITALY, MAY 27 TO 29, 1986I. MEMBER STATESFRANCE

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[Annex II follows]

ANNEX II

Remarks to the summary of the "Inventory of the statistical methods used at present when comparing data on vegetable varieties " (Dr. Weatherup, United Kingdom)

- Q 1 Most countries have at least 2 replicates for most species which is satisfactory. It is important to have at least 2 replicates from a statistical point of view.
- Q 2 The placing of candidate varieties beside a similar control can make it more difficult to distinguish between the varieties using a statistical analysis since adjacent plots are more similar than plots far apart, a smaller error should be used when comparing varieties placed together.
- Q 3 Varieties similar to candidates is acceptable provided that no similar varieties on the National List have been omitted.
- Q 4 Generally 2 years of testing. It is important to establish consistency over years with at least 2 years of results.
- Q 5 Generally no except for non-uniformity when one year is acceptable.
- Q 6 Mostly one test centre. A method for combining two centres, where they exist, is required.
- Q 7 All methods are used by most countries. To assist in the analysis statisticians recommend that where possible a continuous scale is used. When a scale 1, 2 ...9 is used it should be ensured that the difference between neighbouring states is the same, i.e. difference between states 1 and 2 is same as between 5 and 6 etc.
- Q 8 Normally random sample excluding abnormal plants.
- Q 9 It is recommended that plot means are analysed, not individual plants.
- Q 10 A better estimate of error is obtained if the error from an analysis of variance is used rather than from the variety pair since there are more degrees of freedom available in the analysis of variance. However the analysis of variance assumes that all varieties have the same variation.
- Q 11 For quantitative characters the TWP on Automation and Computers would recommend the COY criterion, possibly at 5 % level if vegetable varieties are more short term than herbage varieties.
- Q 12 A wide range of uniformity criteria are in use. Perhaps the method being considered by the TWP on Automation and Computers could be used later.
- Q 13 Mainly linked with uniformity.

Extract from the Draft Report on the Fourth Session of the
Technical Working Party on Automation and Computer Programs

30. Dr. Fuchs (Federal Republic of Germany) introduced document TC/XXI/6, which contained proposals for the revision of the UPOV Model for a Report on Technical Examination. The Working Party also noted paragraphs 43 to 45 of document TC/XXI/7, giving a summary of the discussions held on that subject during the last session of the Technical Committee. In paragraph 45, the Technical Committee had asked the Technical Working Parties to comment on the draft.

31. Having examined the above-mentioned documents, the Working Party finally agreed to recommend the following to the Technical Committee:

(i) At the top of the table of characteristics, information on the following should be requested:

- species (latin and common name)
- breeder's reference
- variety denomination
- application number
- reference number assigned by the testing authority
- testing authority
- testing place
- period of testing (19.. to 19..)
- date of preparation of the documents
- UPOV Test Guidelines (document no. and date)
- space for national Test Guidelines (date)
- applicant

It would have to be decided whether items that are not fixed (applicant, application number of requesting authority) should be placed on a different sheet or at the very top of the form.

(ii) In the Table of Characteristics of Annex II to document TC/XXI/6, the following should be amended:

- There should be a small column for brief remarks or for a reference to longer remarks to be contained in a footnote.
- National numbers of characteristics should be placed in a separate column and do not need to be specially marked.
- Additional national characteristics should not be placed after the UPOV characteristics, but in the natural sequence, as the main use of the form would still be for national purposes.
- States should not have a box which could simply be marked
- The asterisks from the UPOV Test Guidelines should be repeated in the form.

- The grouping characteristics should also have their characteristic number if it exists.
- Characteristics not observed should not be mentioned.
- Most experts thought that characteristics not applicable should nevertheless be mentioned.

Some experts warned against overloading the form with too much information.

[End of Annex III and of document]